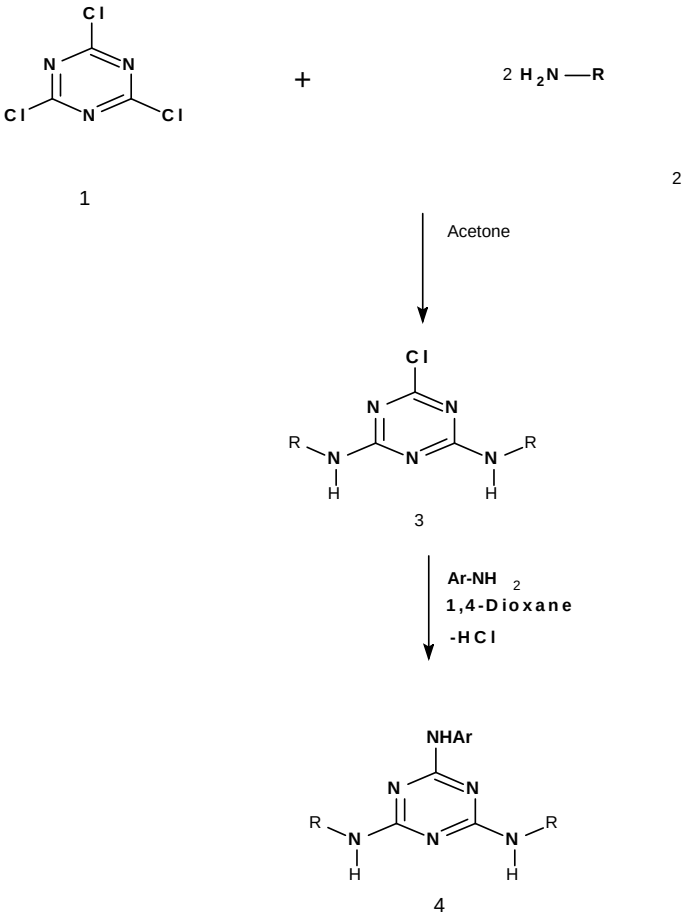
RESEARCH METHODOLOGY AND WORK PLAN

We are going to synthesis various heterocyclic containing compounds. Compound will be synthesized, characterized and evaluated for biological screening. Following are the scheme we have to study for our research work. To synthetic approach s-triazine and imidazole for their antimicrobial and anti-inflammatory activity:

Part-1

Synthesis and biological evolution active molecule of *s*-triazine analogues for their antimicrobial activity.

Scheme 1: Cynauric chloride (2, 4, 6-trichloro 1, 3, 5, triazine, due to presence of three chloro groups offers numerous possible modifications to be carried out via nucleophilic substitution reactions.



Where

1: Cynauric chloride (2, 4, 6-trichloro 1, 3, 5, triazine)

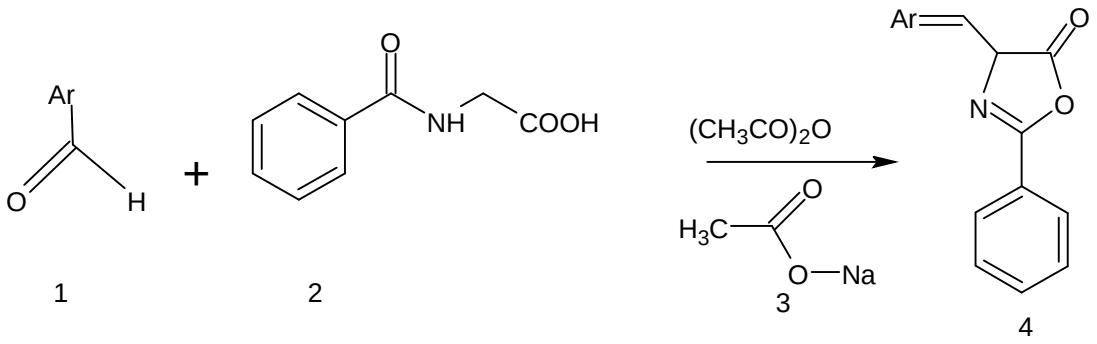
2: Heterocyclic amine, aromatic amine.

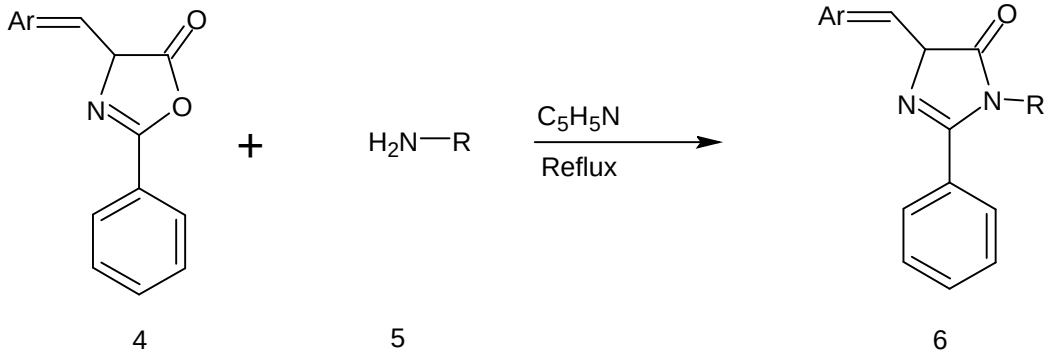
3: Monochloro di-amino substituted 1, 3, 5, triazine.

4: Ar: Various aromatic group.

Part 2: Synthesis & evaluation of active molecule of imidazole analogues for their antimicrobial activity.

Scheme 2:





Where

1: Aldehyde, Ar: Various aromatic group

2. [(phenylcarbonyl)amino]acetic acid

3: Sodium acetate

4. Various oxozole

5: Heterocyclic amine, aromatic amine.

6: Imidazole -4-ones.

Work Plan:

In beginning planning for s-triazine analogue and imidazole analogue literature survey.

Synthesis work , screening, biological evaluation and thesis preparation work has been divided as per given below:

The synthesis of s-triazine analogue and imidazole analogue.

Characterization of all novel compounds by means of NMR, Mass, IR and Elemental analysis.

Biological evaluation of newly synthesized compounds for their antimicrobial activity against *E.Coli, P. aeruginosa, S. aureus, S.pyogenus* and *antifungal activity against C.albicans, A.niger, A.clavatus.*

Study result, paper publishing and preparation of Thesis.